A DESCRIPTION OF THE ADULT BLACK MERLIN (FALCO COLUMBARIUS SUCKLEYI).

BY FANNIE HARDY ECKSTORM.

Although the young of the Black Merlin was described by Mr. Robert Ridgway twenty-nine years ago and adult specimens have been in collections for upwards of twenty years, by some inadvertency no description of the adult seems ever to have appeared in print. The specimen in my father's collection was declared by no less an authority than Major Charles E. Bendire, who gives at length the story of its capture in his 'Life Histories of North American Birds' (Vol. I, p. 201), to be the finest specimen he ever saw, and because he indicated its fitness to stand as the type of the male in perfect breeding plumage, I have undertaken to supply the deficiency in description.

In his book Major Bendire characterizes the bird as "a very handsome adult specimen," and in a letter written shortly after its capture he again mentions it. As contributing to the history of the specimen but quite as much because it gives to those who did not know him personally some notion of Major Bendire's generosity and his extreme disinclination to leave any room for thanks, no matter what trouble he was at, the whole letter may be quoted.

"Fort Klamath, Oregon, May 13, 1883.

"MY DEAR MR. HARDY:-

Your box of birds left Linkville, Oregon, on the 10th inst. Linkville is the nearest express office from here. I think the charges on it will be between 7 and 8 dollars, something over 50 cts. per pound. Have just received your letter of the 30th ult. It is still wintry here, it has been snowing more or less all day. Robins and Melospizas are just commencing to lay, and other birds will follow I hope in a few days. I shall give up making skins now for awhile. I shot a beautiful \mathcal{E} adult \mathcal{E} salon columbarius suckleyi a couple of days ago which I consider one of the best finds I have made here. Much to my surprise I find the California Jay here. I would not have believed it but I shot one of the birds and have it now. Hope to hear that the skins arrived in good order. Very truly,

CHS. E. BENDIRE."

Not a word here to indicate that this Linkville was sixty miles away, and that he had ridden there in disagreeable weather over roads sure to have been bad to make certain that his gift was safely started, nor that the box contained the bulk of his acquisitions in six months, nor that he contemplated adding this Merlin, the rarest of his recent captures, to a gift already so bountiful as almost to dismay the recipient, who was merely a friend-by-letter. But that was like the Captain.

Falco columbarius suckleyi (Ridgw.), 3 adult, (collection of Manly Hardy, Brewer, Maine, taken by Capt. Chas. E. Bendire, U. S. A., May 9, 1883. "thirty miles south of Fort Klamath, Oregon, en route to Linkville, in pine timber").

Entire upper parts black, with the gloss of high plumage but without particular iridescence, shaded as follows: head and neck dull black, bend of wing and lesser coverts metallic black, remiges warm brownish black, rectrices dead black, tertials, lower scapulars, middle and greater coverts, rump and upper tail-coverts a clear steel-blue black, bluest on tailcoverts, most ashy on tertials, forming a continuous but restricted mantle, every feather of which shows a heavy black shaft; crown (in high lights only) with a tinge of ashy sufficient to demark a definite crown patch, in other lights nearly concolor with the neck and upper back but showing on every feather a central black stripe which minute examination shows to persist even on the neck where the black is intense enough to all but efface it. A nuchal collar, interrupted and indistinct, formed by buffywhite spots at the bases of the neck feathers, visible where the feathers do not perfectly overlap. Primaries and secondaries narrowly outlined on tips and back edges by a line of buffy brown, the outer webs immaculate, the inner webs showing, though slightly, the sparse light bars of the under side. Tail with a mere trace of white terminal line and four narrow, obsolescent bluish ash bands, the outermost (lying 2.20 in. from tip) so interrupted as to be incomplete on every pair of rectrices, and restricted on the four outer pairs to a V-shaped mark at the centre of the vane; the next band, the last visible below the coverts, whiter, wider and more continuous. Forehead narrowly whitish; a narrow but distinct white superciliary line; sides of head and neck and the throat well down to the point of the breast, white, every feather streaked with black of varying amount and intensity, the black predominating on the lores and maxillary spaces, where it forms a rather indefinite maxillary stripe, and the white being in excess on the throat where it is pure in color and narrowly but decidedly striped, every feather of the middle of the throat showing a black shaft-line and a tiny fan-shaped spot at the tip, and those along the edges of the area being uniformly and rather heavily striped. Breast with the white ground turning to buff and the black, by a change

of the color pattern of the feathers, suddenly predominating, giving the effect of a brownish black body with buff markings, thickest down the axis, each feather of the middle of the breast being black with a buff edge laterally while those toward the sides have the buff restricted to a patch each side of the shaft toward the base. Where the feathers are longest other series of spots appear, sometimes confluent, so that the flank feathers are conspicuously barred twice or thrice with brownish black. The crissum and shorter tail-coverts repeat the pattern of the throat but on a ground of deep buff and with longer, heavier streaks; the ochraceous tibiæ are similarly but more broadly and heavily marked; the longest under tail-coverts show a handsome pattern of hastate black spots on a pale buff ground, the spot being but the irregular terminal of several heavy bars. From below the tail shows the terminal band more clearly and the lowest of the whitish bands, the only one visible below the coverts, is whiter and more regular than on the upper surface. The wings (too tightly closed in this specimen to admit of minute examination) are notably dark beneath, though browner than on the upper surface, show some white upon the under coverts and have five to seven obsolescent whitish bars (rather than spots) on the inner webs of the primaries. near the basal half.

Legs yellow; bill horn-blue. Wing, 7.70; tail, 5.30; tarsus, 1.30; bill, .62; depth of bill, .40.

I have not on hand the material to warrant any dogmatic conclusions, but comparing this specimen with a limited number of both F. columbarius and F. richardsoni one is struck by its evident kinship to the former. Indeed, a large female in high autumnal plumage, taken on the Cranberry Islands, off Mount Desert, Maine, is strikingly like this Black Merlin, being very nearly as dark on the back and two thirds as black below; were it a blueblack instead of a sepia-black it might very well pass for the mate to this male. Between this and richardsoni, however, there is an evident gulf, hardly more noticeable in color than in form. Richardsoni in all the plumages that I have seen shows a distinct mottled nuchal band, while the nuchal stripe of columbarius is much more hidden, a variation of the bases rather than of the extremities of the feathers. In columbarius also the maxillary stripe is stronger and more definite and the black line down the centre of the feathers (in richardsoni never more than a mere shaft-line) is consistently heavier. Columbarius likewise in the younger plumages is more nearly immaculate above and in all shows no spots on the outer webs of the primaries and fewer and

narrower tail-bars. Richardsoni in all plumages has wings that are heavily spotted when closed and a tail that is clearly striped with six or seven definite white stripes. Columbarius, in the specimens at hand, shows no spots on the outside of the wing when closed and but four to five narrow tail-bars, the terminal black bar (next the white tip) being of extra width. In suckleyi these characters are emphasized to a degree, the bird being practically uni-colored above. I speak of these points chiefly to remark the fact that the Black Merlin is, in the adult plumage an intensification of the darker phases of the Pigeon Hawk, but also to call attention to a specimen which Capt. Bendire took at Fort Walla Walla, Wash., and which Mr. Wm. Brewster commented upon in the Nuttall Ornithological Bulletin for Oct., 1882, p. 230. This specimen which presented "a puzzling combination of characters," showed "almost orange chestnut on the breast and tibiæ" and on the back "a nearly pure plumbeous" while "the outer web of all the primaries, excepting the first two, [were] conspicuously marked with rounded spots of pale ochraceous." At this time, Mr. Brewster says, "the adult of suckleyi is unknown, but we should expect to find it like the young, with sparse, inconspicuous spotting on the lining of the wings." Even at so late a date as this it may not be untimely to note that Mr. Brewster was entirely correct in his surmise about the adult Black Merlin, and to suggest that the specimen in question seems to combine the characters of the adults of both suckleyi and richardsoni and may perhaps, if not already accounted for, be explained as one of those not unknown hybrids that give so much difficulty in classifying hawks.